Nos. 2015-1769, -1770, -1771

United States Court of Appeals for the Federal Circuit

INTELLECTUAL VENTURES I LLC,

Plaintiff-Appellant

v.

SYMANTEC CORP.,

Defendant-Cross-Appellant

TREND MICRO INCORPORATED, TREND MICRO, INC. (USA),

Defendants-Appellees

Appeals from the United States District Court for the District of Delaware in Case Nos. 10-cv-1067 & 12-cv-1581, C.J. Leonard P. Stark.

BRIEF OF CROSS-APPELLANT SYMANTEC CORPORATION

Douglas E. Lumish
Jeffrey G. Homrig
LATHAM & WATKINS LLP
140 Scott Drive
Menlo Park, CA 94025
(650) 328-4600

Gabriel K. Bell
Robert J. Gajarsa
LATHAM & WATKINS LLP
555 Eleventh St. NW, Suite 1000
Washington, DC 20004
(202) 637-2200

Dean G. Dunlavey
LATHAM & WATKINS LLP
650 Town Center Drive, 20th Floor
Costa Mesa, CA 92626
(714) 540-1235

Counsel for Defendant-Cross-Appellant Symantec Corp.

October 5, 2015

CERTIFICATE OF INTEREST

Counsel for Defendant-Cross-Appellant Symantec Corporation certifies the following:

1. The full name of every party or amicus curiae represented by me is:

    Symantec Corporation.

2. The name of the real party in interest (if the party named in the caption is not the real party in interest) represented by me is:

    N/A.

3. All parent corporations and any publicly held companies that own 10 percent or more of the stock of the party or amicus curiae represented by me are:

    Symantec Corporation has no parent corporation. No publicly held corporation owns 10% or more of the stock of Symantec Corporation.

4. The names of all law firms and the partners or associates that appeared for the party or amicus curiae now represented by me in the trial court or agency or are expected to appear in this court are:

    Latham & Watkins LLP: Dean G. Dunlavey, Douglas E. Lumish, Jeffrey G. Homrig, Neil A. Rubin, Kathy Yu, Michelle P. Woodhouse, Joseph H. Lee, Brett M. Sandford, Robert J. Gajarsa, Michael J. Gerardi, Gabriel K. Bell, Andrew J. Fossum, Mark A. Flagel (retired), Yury Kapgan (currently at Quinn Emanuel).

    Morris, Nichols, Arsht & Tunnell LLP: Jack B. Blumenfeld, Thomas C. Grimm, Ramy E. Hanna (no longer with firm), Karen Ann Jacobs, Michael J. Flynn.

    Quinn Emanuel Urquhart & Sullivan, LLP: Yury Kapgan, Suong Nguyen.

Dated: October 5, 2015   Respectfully submitted,

                                           /s/ Dean G. Dunlavey
                                           Dean G. Dunlavey
                                           Latham & Watkins LLP
                                           650 Town Center Drive, Suite 2000
                                           Costa Mesa, CA 92626
                                           (714) 540-1235

                                           Counsel for Defendant-Cross-
                                           Appellant Symantec Corp.

ii

TABLE OF CONTENTS

Page

Page

TABLE OF AUTHORITIES

Page(s)

CASES

Page(s)

Page(s)

STATUTES AND RULES

OTHER AUTHORITY

TABLE OF ABBREVIATIONS AND CONVENTIONS

IV   plaintiff-appellant Intellectual Ventures, I LLC

Symantec   defendant-cross-appellant Symantec Corporation

Trend Micro   defendants-appellees Trend Micro Incorporated and Trend Micro, Inc. (USA)

JA___   joint appendix page

PTO   United States Patent and Trademark Office

'050 patent   U.S. Patent No. 6,460,050

'142 patent   U.S. Patent No. 6,073,142

'610 patent   U.S. Patent No. 5,987,610

(xx:yy-zz)   column xx, lines yy to zz

STATEMENT OF RELATED CASES

The underlying judgment here was previously appealed to this Court in Case Nos. 15-1677 and 15-1678. Those appeals were dismissed as premature before IV filed its principal brief.

This Court's decision may directly affect the pending post-trial proceedings for the '610 patent in the underlying district court action, *Intellectual Ventures I, LLC v. Symantec Corp.*, No. 10-cv-1067 (D. Del). In addition, the decision in this appeal may affect PTO Reexam No. 95/002202, in which all asserted claims of the '050 patent have been invalidated as anticipated. Counsel is unaware of any other cases that may be directly affected by this Court's decision.

STATEMENT OF JURISDICTION

Symantec agrees with IV's statement that this Court has jurisdiction under 28 U.S.C. § 1295(a)(1).

STATEMENT OF THE ISSUES

IV's Appeal

1. Whether the district court correctly held the asserted claims of the '050 patent invalid for lack of patent-eligible subject matter under 35 U.S.C. § 101 because they are directed to the abstract idea of using a number to classify and determine characteristics of something and, at most, limit that idea to a computer

environment without adding any inventive features under the two-step framework of *Alice Corp. Pty. Ltd. v. CLS Bank International*, 134 S. Ct. 2347 (2014).

2. Whether the district court correctly held the asserted claims of the '142 patent invalid under § 101 because they are directed to the abstract idea of distributing messages based upon their characteristics and, at most, limit that idea to a computer environment without adding any inventive features under *Alice*.

Symantec's Cross-Appeal

3. Whether the district court erroneously declined to hold claim 7 of the '610 patent invalid under § 101 by failing to recognize that the claim merely recites the abstract idea of screening and removing harmful content from deliveries at an intermediary location in a particular technological context, without adding inventive features under *Alice*.

INTRODUCTION

IV argues that the asserted claims of the '050 and '142 patents cannot be directed to abstract ideas because they apply only to *digital* files and *electronic* mail. But it is settled law that limiting an abstract idea to a particular technological environment does not clear the § 101 hurdle. The asserted '050 patent claims merely use generic computing technology to apply the basic concepts employed by, for example, the Dewey decimal system to digital files (instead of physical books), while the '142 patent claims apply standard mail routing practices to email (instead of postal mail). They claim nothing inventive beyond those abstract ideas. The district court rightly agreed, and its decision finding the asserted claims of the '050 and '142 patents invalid under § 101 should be affirmed.

Claim 7 of the '610 patent is likewise directed to a patent-ineligible abstract idea: screening and removing harmful content from deliveries at an intermediary location prior to receipt by an addressee. The district court's contrary holding was primarily based on the erroneous belief that claim 7 could not be directed to an abstract idea because it concerns screening *electronic* deliveries for *computer* viruses. However, limiting the intermediary-screening concept to one field-of-use does not make it nonabstract. And although it did not fully reach *Alice* step two, the court erroneously stated that there were additional inventive elements of the claim because the written description recounted steps in a virus detection method

3

covered by *unasserted* claims. To practice claim 7, *any* virus screening method will suffice—including those well-known in the art.

Put simply, claim 7 embodies nothing more than the idea that screening deliveries at an intermediary location rather than at the addressee's location is a better way of checking for harmful content. That concept, however, is age-old and has been practiced by safety-minded civilizations at least since the Trojans failed to carefully examine the Greeks' wooden message of surrender before allowing it through their city's gates. The district court's decision finding claim 7 not invalid under § 101 should be reversed.

STATEMENT OF THE CASE

I.   THE PATENTS-IN-SUIT

A.   The '050 Patent

The '050 patent was filed on December 22, 1999, JA242, and concerns methods of identifying characteristics of data files—for example, to determine whether an email is unsolicited and undesired (i.e., "spam"). *See* JA245-47 (2:37-43, 3:7-20, 5:66–6:17). The patent's purportedly inventive way of determining the characteristics of a given file is to assign the file an identifier based on its content and then match that identifier to a database of known identifiers for other files— the same way, for example, that a book's call number can be compared to the

existing entries in the Dewey decimal system to ascertain its subject matter, intended audience, or location.

Contrary to IV's characterization (e.g., IV's Opening Brief ("OB") 10-14), the '050 patent is not directed to solving (and does not mention) a "volume problem" or "protection gap" problem. Nor do any of the asserted claims address the detection of viruses, as IV also asserts (*id.*). While the specification mentions virus detection as an ambiguous possibility, it does not disclose any system for detecting viruses. *See, e.g.*, JA245-46, 248 (1:65–2:4, 3:16-20, 7:24-27). Indeed, in a pending re-examination, the PTO not only has cancelled each of the asserted claims in light of prior art but also has rejected several attempts by IV to add new claims directed at virus scanning, explaining that there is insufficient disclosure to support such claims. *See* JA3789-91; *see also* JA3785-89, 3793-828 (discussing disclosures in prior art).

To implement the claimed inventions, the '050 patent does not recite the specific use of any inventive algorithm or specialized computer. To the contrary, the written description emphasizes that the '050 invention can be readily implemented using generic computer software and hardware, in "executable code" written in a routine programming language, and "designed to interact with any number of commercial or free e-mail systems." JA246 (3:65–4:36). It does not provide any process or guidance for programing a general purpose computer to

5

implement the invention. Indeed, the '050 inventors confirmed that (i) a human could have "served in place of the computers" in their invention, (ii) a human could have performed every step of the claimed methods, and (iii) their invention did not require "a specific device," "particular programming structure," "particular data structure," or "particular machine" to operate. JA3417, 3424-30; JA3434, 3441-42.

Claims 9, 16, and 22 of the '050 patent are asserted against Symantec. Claim 9 is representative:

> A method for identifying characteristics of data files, comprising:
>
> > receiving, on a processing system, file content identifiers for data files from a plurality of file content identifier generator agents, each agent provided on a source system and creating file content IDs using a mathematical algorithm, via a network;
> >
> > determining, on the processing system, whether each received content identifier matches a characteristic of other identifiers; and
> >
> > outputting, to at least one of the source systems responsive to a request from said source system, an indication of the characteristic of the data file based on said step of determining.

JA248 (cl. 9); *see* OB 43-45 (relying on claim 9 as representative).

B.   The '142 Patent

The '142 patent concerns systems and methods for providing business organizations control over the distribution of electronic mail using "business rules"

6

created by human administrators that correspond to well-known routing protocols used within companies for the distribution of printed materials, such as letters, journals, memoranda, and invoices. *See, e.g.*, JA200, 225-26, 229 (abstract, 1:15-34, 3:45-61, 9:66–10:6).

According to the inventors, all of the business rules used by the patented invention could "be implemented or applied to a paper piece of mail." JA3297, JA3301; *see* JA3309-11. Indeed, the written description explains how the invention consists of applying *known* methods of reviewing and routing paper documents within a company to email communications. It states that companies "have elaborate methods to control the flow of memorandum, publications, notices, and other printed information within the organization" through rules "typically . . . managed by the personnel, human resources, or other departments." JA225 (1:15-34). Those rules include, for example, "prohibit[ing] the distribution of memoranda to all employees in order to reduce photocopying costs," "filter[ing] documents that are to be sent to specific persons," and "prohibit[ing] distribution of certain types of documents" based on content. *Id.* (1:19-34).

The written description does not disclose any specific hardware, specialized programming, or algorithms that would permit a company to implement the claimed invention. Contrary to IV's claim (e.g., OB 16), the '142 patent never discusses the use of a "quarantine" to process email—that word does not even

appear in the patent.[1]   Instead, the patent provides a functional description for distributing messages and emphasizes that the service can be implemented with conventional computer and networking technology: the disclosed system "provides support for *conventional* e-mail," JA226 (3:24-28); *see also* JA227 (5:48-59); "operates on a *conventional* communications network," JA227 (5:45-47); and "operate[s] in conjunction with *conventional* operating systems" on "*conventional* server-class computers," JA229 (9:51-58).[2]

Of the four claims asserted against Symantec, two are directed to methods (21, 22) and two are directed to systems (1, 7). All of the claims are substantially similar and no party claims that they differ in any relevant manner for § 101 purposes. Claim 22 is representative:

> A computer implemented process for reviewing an e-mail message, comprising:
>
> receiving the e-mail message at a first post office, the e-mail message having at least one specified recipient;
>
> deferring the e-mail message by:
>
> automatically combining the selected e-mail message with a new distribution list specifying at least one second post office for receiving the e-mail message for review by an administrator associated with the second post office and a

---

[1]   The '142 patent describes the use of a "mailbag" to hold mail waiting for review, which is just a "folder." JA228 (7:23-27, 8:50-51).

[2]   All emphases in this brief are added unless otherwise noted.

> rule history specifying at least one business rule determined to be applicable to the e-mail message; and
>
> automatically delivering the selected e-mail message to an administrator at the second post office on the distribution list instead of a specified recipient of the e-mail message;
>
> persistently storing the e-mail message at the second post office until the e-mail message is reviewed;
>
> automatically reviewing the e-mail message after a specified time interval to determine an action to be applied to the e-mail message; and
>
> automatically applying the action to the e-mail message.

JA240 (cl. 22).   Asserted method claim 21 is similar and includes a step of "storing" business rules to be applied to messages, "selecting" messages to defer, and "delivering" non-selected messages to the intended recipient.   JA239-40 (cl. 21).   Asserted claims 1 and 7 are also similar and are directed to a "post office" comprising components such as a "receipt mechanism," a "database," a "rule engine," a "distribution mechanism," and "message store[s]."   JA238 (cls. 1, 7). The specification describes those components as "*functional* modules for receiving, processing, and distributing e-mail messages," not specific devices. JA227-28 (6:25–7:3).   There is no disclosed structure for any components required by the claims—they are not even identified as being hardware or software.

9

C.   The '610 Patent

The '610 patent concerns "screen[ing] computer data for viruses within a telephone network before communicating the computer data to an end user." JA191 (1:59-64). As one of its inventors conceded, the key concept of the '610 patent was not an improvement in the field, but a mere business "idea." *See* JA1714-15; JA3446, 3450-52. Indeed, there was no actual reduction to practice of the '610 invention, and the named inventors did not have professional experience with antivirus technology—they were in either brand management, product management, or law school to become a "patent attorney." *See* JA1708, 1712, 1716, 1725, 1728-29; *see also* JA1707-30.

The '610 patent does not claim the idea of virus scanning or any improvement to known ways of screening viruses. To the contrary, the written description states that, at the time the '610 patent was filed, "[m]any computer users ha[d] virus screening and detection software installed on their computers," JA191 (1:10-11); that for purposes of the purported invention, virus scanning can be performed on a "*conventional* telephone network processor," JA192 (3:35-39) which "can augment *conventional* circuit-switched network elements," *id.* (3:49-51); and that the virus scanning methods disclosed in two prior art patents could be used to implement the invention, JA196 (12:27-31). The written description of the '610 patent describes only well-known technologies and protocols, including

10

generic telephone and computer equipment capable of performing known virus scanning techniques at a remote location—it does not disclose any specialized hardware or algorithms. *See, e.g.*, JA192-96 (4:9-22, 5:20-27, 6:1-44, 7:64–8:12, 10:20–11:25).

Similarly, the patentees admitted that they did not invent virus screening or any other aspect of the claimed invention beyond the mere location in which the antivirus screening occurred. *See* JA1710-12, 1715, 1722, 1728-29; *see also* JA3559, 3569-70. And unrebutted testimony during trial from one of skill in the art confirmed that virus screening was performed for clients by remote computers years before the '610 patent was filed. *See* JA1481-82. Indeed, IV's expert and IV did not contest below that the prior art included screening for viruses in the same supposedly inventive remote network location "within the telephone network" required by claim 7 (the only claim asserted here). *See* JA3476, 3498-99; JA3533, 3555-57; JA2377.

Claim 7 (read together with claim 1) provides:

> A virus screening method comprising the steps of:
>
> routing a call between a calling party and a called party of a telephone network;
>
> receiving, within the telephone network, computer data from a first party selected from the group consisting of the calling party and the called party;
>
> [determining that virus screening is to be applied to the call based upon at least one of an identification

11

code of the calling party and an identification code
of the called party;]

detecting, within the telephone network, a virus in the
computer data; and

in response to detecting the virus, inhibiting
communication of at least a portion of the
computer data from the telephone network to a
second party selected from the group consisting of
the calling party and the called party.

JA197-98 (cl. 1 with cl. 7 language inserted in brackets).

II.   DISTRICT COURT PROCEEDINGS

IV filed this patent infringement suit on December 8, 2010. JA165, 178.

The district court severed Trend Micro on November 21, 2012, JA4, and construed

disputed claim terms on December 12, 2012, *id.*; JA251-82. A jury trial with IV

and Symantec commenced on January 26, 2015. JA4. On February 6, 2015, the

jury returned a verdict, *id.*, finding that Symantec did not infringe the '050 patent

but did infringe the '142 and '610 patents, and that the patents were not proved

invalid under §§ 102 and 103. JA2778-85.[3]

As instructed by the district court, the parties briefed Symantec's § 101

claims after trial, and on April 22, 2015, the district court issued its § 101 opinion,

which is the subject of these consolidated appeals. JA1, 5. Applying the Supreme

---

[3]   The jury's verdict regarding the '610 patent is currently the subject of a pending
JMOL motion. *See* JA3473-74; JA3476, JA3489-99; JA3559, 3568-72. No post-
trial motions concerning the '050 and '142 patents are pending. *See* JA3470-72.

Court's two-step *Alice* framework, the court held that the asserted claims of the '050 and '142 patents were invalid under § 101 but found that Symantec had not proven claim 7 of the '610 patent invalid. JA3, 54.

As to the asserted '050 patent claims, the court first found (at *Alice* step one) that they were directed to the abstract idea of "receiving identifying information, comparing it to other information, and outputting an indication based on the identifying information." JA23. That concept, the court explained, could just as easily be "performed by human beings in a non-computerized 'brick and mortar' context," JA20-21, and the claims were "strikingly similar to the [invalid] claims in *Cybersource* [*Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366 (Fed. Cir. 2011)]" and to those in *Content Extraction & Transmission LLC v. Wells Fargo Bank, National Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014), JA19. The district court next found (at *Alice* step two) that the limitations in the claims beyond the abstract classification idea were nothing more than generic computer technology and conventional steps. JA23-24. The court explained that "hashing" data according to known mathematical algorithms, "characterizing" data by comparing it to identifiers in a database, and limiting the operation of the claims to electronic mail did not add anything "inventive." *See* JA24-27.

The court reached a similar conclusion for the asserted '142 patent claims. It first held that the asserted claims were directed to the abstract concept of

13

reviewing and routing documents to email communications within a company—the same basic process as routing physical mail in "brick-and-mortar post offices." JA34-40. The court noted that IV itself had stated that the "post office" used in the invention "is not much different than a United States Postal Service office that processes letters and packages, except that the process is all computer-implemented and done electronically in a matter of seconds." JA40 (citation omitted). The court then held that the other limitations in the claims added nothing inventive—all of the components "may be implemented purely in software and executed on any generic computer." JA42. "Aside from the limitations that include or require a generic computer implementation," the court further concluded that "the limitations of the asserted claims are human-executable and directed to fundamental (mailroom) business practices similar to those found patent ineligible in *Bilski* and *Alice*." JA39. The court also determined that the claims "disproportionately tie up use of the patent's underlying ideas" for generally filtering emails. JA41.

In contrast, the court found claim 7 of the '610 patent eligible. At *Alice* step one, the court determined that the claim was not directed to an abstract idea because it "recites [screening] a *computer virus*, which has computer-centric implications" and "the human mind cannot perform the steps described in the specification for implementing virus screening functionality in a telephone

14

network." JA44 (emphasis in original). The court declared that virus detection "does not make sense outside of a computer context," JA52, and that "coordination between a virus detecting computer, a sending computer, and a receiving computer is something 'necessarily rooted in computer technology in order to overcome a problem specifically arising in the realm of computer networks,'" JA49 (quoting *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014)).

The district court found it "not necessary" to evaluate *Alice* step two but "note[d]" that "the *specification* of the '610 patent recites a specific machine configured in a specific way to implement claim 7" in figures 3, 4, and 5 and the accompanying description. JA53. In addition, although the court acknowledged that claim 7 "is *not* limited to a specific type of virus detection," JA49 n.12, it found that the claim does not "disproportionately preempt virus detection," JA53.

SUMMARY OF THE ARGUMENT

The asserted claims of the '050, '142, and '610 patents are all directed to abstract ideas, respectively: (i) classifying something based on a number and then later determining a characteristic about that thing from the assigned number; (ii) distributing messages based on characteristics, such as origin, addressee, or content; and (iii) screening for and removing harmful content from deliveries at an intermediary location before receipt by an addressee. Those ideas are little more than the Dewey decimal system, the well-known concept of forwarding mail or

15

business memoranda in corporations, and diverting mail or imports for inspection before delivery to the addressee. The asserted claims add nothing inventive to those abstract ideas and simply direct the application of them on generic computing technology that performs conventional computer functions.

It is settled law that limiting an abstract idea to a particular technological environment or merely applying it to solve a problem unique to computers does not make it patent-eligible—nor does adding generic computer elements or functions. Therefore, the district court's decision holding the asserted claims of the '050 and '142 patents invalid under 35 U.S.C. § 101 should be affirmed, and its decision holding claim 7 of the '610 patent not invalid under § 101 should be reversed.

ARGUMENT

I.   STANDARD OF REVIEW AND BACKGROUND LAW

Patent eligibility under § 101 is an issue of law reviewed de novo. *Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1366, (Fed. Cir. 2015); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1362 (Fed. Cir. 2015).

Section 101 provides that "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title." 35 U.S.C. § 101. The Supreme Court's now-

familiar two-part framework for analyzing § 101 eligibility controls the disposition

of this appeal. *See Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2355

(2014).

At step one of the *Alice* framework, the Court must determine whether the

asserted claims are directed to an abstract idea. *Id.* As the Supreme Court has long

recognized, § 101 "contains an important implicit exception" for abstract ideas. *Id.*

at 2354 (citation omitted). Such ideas are not patent eligible as a matter of law

because they are basic tools in the "storehouse of knowledge" that are "free to all

… and reserved exclusively to none." *Bilski v. Kappos*, 561 U.S. 593, 602 (2010)

(alteration in original) (citation omitted). "'[M]onopolization of those tools

through the grant of a patent might tend to impede innovation more than it would

tend to promote it,' thereby thwarting the primary object of the patent laws."

Alice, 134 S. Ct. at 2354 (alteration in original) (citation omitted).

Importantly, at *Alice* step one, "[a]n abstract idea does not become

nonabstract by limiting [it] to a . . . technological environment," such as a

computer. *Intellectual Ventures*, 792 F.3d at 1366. The Court must determine

whether, notwithstanding such computer implementation, the "heart" of the

claims—the "'most important aspect'"—amounts to an abstract idea. *See Internet

Patents Corp. v. Active Networks, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015)

(determining that "essential, 'most important aspect'" amounted to abstract idea at

17

step one); *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014) (identifying abstract idea at the "heart" of computer implemented claims at step one), *cert. denied*, 135 S. Ct. 2907 (2015); *Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1344-45 (Fed. Cir. 2013) (same).

At *Alice* step two, the Court must determine whether the other elements add "an 'inventive concept' sufficient to 'transform' the claimed abstract idea into a patent-eligible application." 134 S. Ct. at 2357 (citation omitted). The prohibition on patenting abstract ideas cannot be circumvented through mere "draftsman's art," or by trying to dress up an abstract idea with inconsequential steps or features. *Id.* at 2359 (citation omitted). Merely implementing an abstract principle using well-known computer components or functions, limiting the idea to a particular technological environment, or adding data-gathering steps or token extra-solution activity is insufficient. *Id.* at 2357-59; *see also Intellectual Ventures*, 792 F.3d at 1367 ("A simple instruction to apply an abstract idea on a computer is not enough."). And adding such "well-understood," "routine," or "conventional" computer features risks preempting the idea itself and contributes nothing to the public store of knowledge. *Alice*, 134 S. Ct. at 2359 (citation omitted). Nor "does claiming the improved speed or efficiency inherent with applying the abstract idea on a computer provide a sufficient inventive concept." *Intellectual Ventures*, 792 F.3d at 1367; *see also Bancorp Servs., L.L.C. v. Sun Life Assurance Co. of Can.*,

18

687 F.3d 1266, 1278 (Fed. Cir. 2012) (performing tasks "more efficiently via a computer" does not make claims patent eligible).

For example, in *Alice*, although the claims purported to describe a complex "computerized scheme for mitigating 'settlement risk,'" 134 S. Ct. at 2352, the Supreme Court found that the patentee's claims merely "require a generic computer to perform generic computer functions" and, "as a whole," "simply recite the concept of intermediated settlement as performed by a generic computer." *Id.* at 2359. As the Court explained, the patentee did not "purport to improve the functioning of the computer itself" or "effect an improvement in any other technology or technical field." *Id.* Applying those same principles, this Court repeatedly has held that implementing an abstract idea in a computer environment or on the Internet does not transform abstract ideas into patent-eligible inventions. *See*, *e.g.*, *Intellectual Ventures*, 792 F.3d at 1366, 1369-70; *Internet Patents*, 790 F.3d at 1348-49; *Content Extraction*, 776 F.3d at 1346-49; *Ultramercial*, 772 F.3d at 716-17; *Accenture*, 728 F.3d at 1345.

II.   THE ASSERTED '050 PATENT CLAIMS ARE INVALID UNDER § 101

Like those in *Alice* and numerous other cases, the asserted claims of the '050 patent are not directed to patent-eligible subject matter. *See* JA2807-11; JA2922-23. They claim nothing inventive beyond the abstract idea of classifying something based on a number and then later determining a characteristic about that

thing from the assigned number—which is a longstanding concept no different from identifying characteristics of books based on the Dewey decimal system or identifying stolen cars based on their license plates. Contrary to IV's arguments, it does not matter under § 101 that the claims are dressed in the garb of conventional computer technology to implement that abstract idea by determining a characteristic of a "*digital* file." OB 31-32. As the Supreme Court and this Court have repeatedly held, reciting an abstract idea in a computer environment does not transform the idea into patent-eligible subject matter. The district court correctly held the asserted claims of the '050 patent invalid under § 101.

A.   The '050 Patent Claims Are Directed To The Abstract Idea Of Classifying Things By Numbers To Later Determine A Characteristic Of Those Things

1.   The Classification Concept Is An Age-Old Abstract Idea

In their "simplest form," *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012), the claims of the '050 patent (of which claim 9 is concededly representative, OB 44-45) require the basic steps of: (1) "receiving" a shorthand identifier for a file (i.e., a "file content identifier"); (2) "determining" whether that identifier matches other existing identifiers to determine a characteristic of the file (i.e., matching numbers to numbers); and (3) "outputting" that characteristic (i.e., relaying what is indicated by a match). JA248 (cl. 9); *see* JA18; JA256-65 (construing claim terms).

20

That is nothing more than the well-known concept of classifying things with shorthand representations of numbers (and/or letters) that later allows characteristics of those things to be quickly or more-easily determined. That abstract idea has been applied in multiple forms for decades. For example, librarians have used it for over 150 years to organize and search for books with the Dewey decimal system, which assigns a number (and sometimes other identifiers) to books based on content, topic, author, intended audience, location, and other representative information. *See, e.g.*, Library of Congress, Dewey Decimal Classification Numbers (Sept. 2011), http://www.loc.gov/marc/bibliographic/bd082.html. And since 1981, federal law has required cars to have a unique 17-digit alphanumeric Vehicle Identification Number ("VIN") that not only identifies the car but also represents information about the car's manufacturer, model year, weight, place of assembly, and other possible vehicle characteristics such as engine, body style, option packages, and transmission. *See, e.g.*, 49 C.F.R. § 565.1 *et seq.* Manufacturers, dealers, consumers, and law enforcement agencies routinely use VINs to track cars, identify their owners, record or search for liens, and determine characteristics and value during a sale or transfer. Even the use of automobile license plates by law enforcement as unique identifiers for cars embodies the abstract idea of the '050 claims. The table below illustrates specific examples. *See also* JA2810-11.

21

Explanation of Claim Elements By IV's Expert	Dewey decimal system	License Plates
"receiving" step: Processing system receives a "file content identifier" from a local computer (JA501);	Librarian receives Dewey decimal system call number for book that a patron wishes to borrow;	Police dispatch receives license plate number "24680" from an officer requesting information about a car;
"determining" step: processing system "compare[s] th[e] file content identifier with some other file content identifiers" in a "database" (JA502);	librarian compares patron's call number to those in library's database to determine availability and location of requested book;	dispatch compares license plate number 24680 against those in database of stolen cars;
"outputting" step: processing system "send[s] a descriptor of the content." (JA502).	librarian informs patron of availability and location of requested book.	dispatch informs requesting officer that car with license plate 24680 is stolen.

The abstract classification idea is akin to—and even more abstract than—ones previously identified by this Court. For example, the '050 claims are "strikingly similar" (JA19) to those invalidated in *CyberSource*, which were directed to identifying online credit card fraud by: (1) obtaining the specific identifying Internet addresses for other credit card transactions (not just the nebulous "file content identifiers" used in the '050 patent); (2) constructing a map of credit card numbers based upon the other transactions (not just ambiguously

"matching" identifiers); and (3) determining whether the transaction is fraudulent using the map (not just determining an undefined "characteristic"). *See* 654 F.3d at 1373. Similarly, in *Content Extraction*, this Court invalidated claims "drawn to the abstract idea of (1) collecting data, (2) recognizing certain data within the collected data set, and (3) storing that recognized data in a memory." 776 F.3d at 1347. And in *Digitech Image Technologies, LLC v. Electronics For Imaging, Inc.*, the patent-ineligible claims were directed to "organizing" digital data through a process that simply applied "algorithms to manipulate existing information to generate additional information." 758 F.3d 1344, 1350-51 (Fed. Cir. 2014); *see also, e.g.*, *Intellectual Ventures*, 792 F.3d at 1366, 1369-71; *OIP*, 788 F.3d at 1361.

In each of those cases, this Court recognized that, although broken into a series of steps or components (often embellished with numerous specific hardware and software components), the underlying ideas were nonetheless abstract concepts and mental processes. The district court therefore properly found that the asserted claims of the '050 patent are directed to the abstract idea of "receiving identity information, comparing it to other information, and communicating results based on the identifying information"—which is nothing more than classifying something based on a number and then later determining a characteristic about that thing from the assigned number. JA20.

2.   The Classification Concept Is Abstract Regardless Of The Claims' Computer Steps And Limitations

IV argues that the asserted '050 patent claims cannot be directed to an abstract idea because they are (i) tied to purportedly "concrete" and "tangible" computer elements—a "processing system," "computer," "server," "database," and "digital content identifier"; (ii) cannot be performed manually; and (iii) have no brick-and-mortar equivalent because they are rooted in computer technology. OB 31-37. Each of IV's points lacks merit.

First, the Supreme Court in *Alice* demonstrated that courts *first* (at step one) should look past computer implementation verbiage (like "processing system" and "digital content identifier") to determine whether claims are, at root, directed to an abstract idea and *then* (at step two) examine whether additional steps and features add anything inventive. 134 S. Ct. at 2355-60. This Court did the same when, for example, it identified the "abstract idea at the heart of" the computer-implemented claims in *Ultramercial*, 772 F.3d at 714, and *Accenture*, 728 F.3d at 1344; summarized the claims in their "simplest form" to determine their "basic concept" in *Dealertrack*, 674 F.3d at 1333 (citation omitted); focused on the "relevant limitations" in *OIP*, 788 F.3d at 1361; and stressed that an abstract idea "does not become nonabstract by limiting [it] to . . . a technological environment" in *Intellectual Ventures*, 792 F.3d at 1366 (rejecting the same argument IV makes here). By refusing to look to the heart of the claims, and instead focusing on the

24

claims' computer limitations, IV erroneously conflates the *Alice* steps. *See* JA2913-20. Here, as in cases like *Alice*, *Intellectual Ventures*, and numerous others, the claims are drawn to an underlying abstract idea notwithstanding their computer implementation.

Second, IV misses the mark with its contentions that the claims cannot be performed "manually" and real world analogues are inapposite because they ignore the claims' technical limitations. OB 35-37. IV made the same arguments in *Intellectual Ventures* and this Court rejected them. In that case, IV argued that "[t]he technology claimed by [the] patent cannot be performed by a human, either in one's mind or otherwise" because the claims recited a computerized "interactive interface" for automatically customizing web page content. Appellant's Br. 28-29, *Intellectual Ventures*, 792 F.3d 1363 (Fed. Cir. 2015) (No. 2014-1506), 2014 WL 3924906, at *28-29. But the Court found the claims were directed to the abstract idea of "tailoring" content and analogized to "providing different newspaper inserts based upon the location of the individual." 792 F.3d at 1369. The Court rejected IV's argument that the claims "address[ed] problems unique to the Internet." *Id.* at 1371.

Similarly, in *Content Extraction*, the asserted claims recited several computer components (e.g., an "automated digitizing unit") and computer-based functions (e.g., "extracting and detecting specific data fields" and "storing data as

images or text"). 776 F.3d at 1345-49. The patentee argued that the claims could not be "drawn to an abstract idea because human minds are unable to process and recognize the stream of bits." *Id*. at 1347. But this Court nevertheless found that the claims were directed to the abstract concept of "data collection, recognition, and storage"—activities "humans have always performed," akin to a banker reading information off a check. *Id.*; *see also, e.g.*, *Versata Dev. Grp., Inc. v. SAP AG*, 793 F.3d 1306, 1335 (Fed. Cir. 2015) ("Courts have examined claims that required the use of a computer and still found that the underlying, patent-ineligible invention could be performed via pen and paper or in a person's mind."). Here, as in such cases, the claims are directed to an abstract idea well-grounded in human activity, despite their computer limitations.

Third, IV's argument that the claims cannot be abstract because they solve "uniquely computer problems" and have no "brick-and-mortar analog[s]" is without merit. OB36. As discussed, numerous analogies demonstrate that the concept at the heart of the '050 claims is a longstanding abstract idea. *Supra* at II.A.1. As the district court correctly concluded, the "asserted claims of the '050 patent are *not* 'necessarily rooted in computer technology'" at all—they are "directed to a generic computer implementation of abstract ideas: receiving identity information, comparing it to other information, and communicating results based on the identifying information." JA20 (emphasis in original).

26

But *even if* the '050 claims were uniquely rooted in computer or other technology, that would not make them patent eligible, as the Supreme Court has held. In *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972), the Court struck down claims directed to a method for conversion of binary-coded decimal numerals that "ha[d] no substantial practical application *except in connection with a digital computer*."

This Court has likewise made clear that "*not* all claims purporting to address Internet-centric challenges are eligible for patent." *DDR Holdings*, 773 F.3d at 1258. In *Internet Patents*, for example, the patent-ineligible claims were directed to an abstract idea (and problem) that existed exclusively within new technology, had no age-old antecedent, could not be performed by humans, and used a uniquely computer solution to solve a problem that was unique to (and caused by) the use of computing technology on the Internet. 790 F.3d at 1344-47. Like IV, the patentee "stress[ed] the unconventionality of the claim elements" and their use in technology-centric applications to solve problems unique to computing technology that uses the Internet: avoiding loss of data through using "Back and Forward buttons" on "web pages" and "online application[s]" in the "increasing[ly] popular[] . . . Internet and the World Wide Web." *Id.* at 1344-45, 1348 (citation omitted). But this Court found that "the end result of 'maintaining the state'" of digital data (the "innovation over the prior art, and the essential, 'most important'"

aspect of the claims) was "an abstract idea: the idea of retaining information in the navigation of online forms." *Id.* at 1347-48.

Here, as in such cases, even if the '050 patent claims had no pre-computer analogues, the claims are directed to an abstract idea. The "basic character" of the claims is a simple approach to determining a characteristic about a data file—i.e., by matching its identifier to a database of known identifiers—that is "so abstract and sweeping as to cover both known and unknown uses." *Benson*, 409 U.S. at 68; *see also Internet Patents*, 790 F.3d at 1348.

B.   The Asserted '050 Claims Add Nothing Inventive To The Abstract Classification Idea

At *Alice* step two, it is clear that the asserted claims of the '050 patent contain no additional features or inventive concept sufficient to satisfy § 101. *See* JA2812-15. At most, they recite performing the abstract classification idea in a particular technological environment using conventional computer components and functions, which does not make the claims patent eligible. IV's arguments to the contrary—essentially the same ones this Court rejected in *Intellectual Ventures*—fundamentally misunderstand the *Alice* analysis: IV conjures benefits and features not found in the claims themselves, conflates § 101 with §§ 102 and 103, contends that claims are invalid under § 101 only if they wholly preempt an abstract idea, and relies heavily on misunderstandings of *DDR Holdings* and *Diamond v. Diehr*. 450 U.S. 175 (1981). None of its positions has merit.

28

1.   The Recitation Of Generic Computer Components And Functions Adds Nothing Inventive To The '050 Claims

"Instructing one to 'apply' an abstract idea and reciting no more than generic computer elements performing generic computer tasks does not make an abstract idea patent-eligible." *Intellectual Ventures*, 792 F.3d at 1368; *see also Alice*, 134 S. Ct. at 2359-60 (invalidating claims that "amount to nothing significantly more than an instruction to apply the abstract idea . . . using some unspecified, generic computer" and in which "each step does no more than require a generic computer to perform generic computer functions" (citation and internal quotation marks omitted)). The '050 patent claims do no more than that, as they only recite using a computer to "receiv[e]" data about a file, "determin[e]" whether that data matches some "characteristic" of other data, and "output[]" an indication of a characteristic of the data. *See* JA248 (cl. 9).

Those generic computer functions repeatedly have been found conventional and routine, not inventive. *See, e.g.*, *Alice*, 134 S. Ct. at 2359 ("receiving" and "outputting" data are "[p]urely conventional" steps that are among "the most basic functions of a computer" (alteration in original) (citations omitted)); *Content Extraction*, 776 F.3d at 1345 ("recognizing portions of . . . documents corresponding to" a particular set of criteria represented in digital format); *buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014) ("receiv[ing] a request" and "transmit[ting] an offer . . . in return" over a network is "not even

29

arguably inventive"); *Accenture*, 728 F.3d at 1338, 1343-45 ("software" and a "database" to "stor[e]," "transmit[]," and "receiv[e]" data); *CyberSource*, 654 F.3d at 1372, 1375 ("detecting . . . fraud based on information relating past transactions to a particular 'Internet address'" and "manipulation or reorganization of data"); *Planet Bingo, LLC v. VKGS LLC*, 576 F. App'x 1005, 1007-08 (Fed. Cir. 2014) ("steps of selecting, storing, and retrieving two sets of numbers [and] assigning a player identifier and a control number" were not inventive).

Indeed, beyond the abstract classification idea, all the remaining elements are indistinguishable from those in claims this Court recently invalidated in *Intellectual Ventures*, which consisted of "entry of data into a computer database, the breakdown and organization of that entered data according to some criteria, . . . and the transmission of information derived from that entered data to a computer user," all enabled through the "use of conventional computer components, such as a database and processors." 792 F.3d at 1371 (alteration in original) (citation omitted). Likewise, in the '050 patent claims, data is received and entered into a database, organized according to some nameless criteria, and then information derived from the data is transmitted to a user. *See* JA248 (cl. 9). As in *Intellectual Ventures*, the '050 patent claims add nothing inventive.

Nor is the use of two or more computers by the claimed methods inventive. *See, e.g.*, *Accenture*, 728 F.3d at 1338-39 (ineligible claim recited two databases);

Content Extraction, 776 F.3d at 1347-48 (ineligible claims recited repeating steps multiple times or recited both a computer and a scanner); *Federal Home Loan Mortg. Corp. v. Graff/Ross Holdings LLP*, 893 F. Supp. 2d 28, 33, 37, 38-40 (D.D.C. 2012) (ineligible claims used "multiple computer systems"), *aff'd*, 604 F. App'x 930 (Fed. Cir. 2015). And the limitations to "filtering an e-mail message" (JA248 (cl. 16)) and "a service on the Internet" (JA249 (cl. 22)) are equally non-inventive. *See, e.g.*, *OIP* (eligible claims recited electronic messages); *buySAFE* (ineligible claims recited service on the Internet); *Ultramercial* (same).

Moreover, as with the ineligible claims in the cases discussed, the '050 claims "do[] not specify how the computer hardware and [components] are specially programmed to perform the steps claimed." *Dealertrack*, 674 F.3d at 1333 (citation omitted); *see Internet Patents*, 790 F.3d at 1348 (ineligible claims recited only the desired "effect or result" of maintaining user's web form entries upon clicking a hyperlink but did not detail the "mechanism"); *Intellectual Ventures*, 792 F.3d at 1371 (ineligible claims merely recited "a 'software' 'brain' tasked" with performing the abstract idea); *OIP*, 788 F.3d at 1363 (ineligible claims' "computer implementation limitations do little to limit their scope" as necessary "programming" was unspecified); *Accenture*, 728 F.3d at 1345 (ineligible claims lacked "detailed software . . . guidelines"). To the contrary, the claimed methods can be "designed to interact with any number of commercial or

31

free e-mail systems," use "any number of different commercial database platforms," and rely on any conventional prior-art "hashing algorithm" to generate numerical file identifiers.[4] JA246-47 (3:59–4:34, 5:59-61); *see also, e.g.*, JA3424-28. And the asserted claims do not even require that the file identifiers be generated by hashing.

In addition, the asserted claims provide no limitation or detail on how to compare the digital content identifiers to determine a characteristic of a file. In fact, the underlying classification idea can be performed without a computer at all, *see supra* at II.A.1, which further confirms that the use of computers adds nothing inventive, *see Benson*, 409 U.S. at 67 (computer-implemented claims not eligible because same basic steps can also be performed "mentally" "without a computer"); *CyberSource*, 654 F.3d at 1373 (steps of computer claims could be performed "by human thought alone"). Indeed, the inventors admitted that the claimed approach can be performed by humans: one "could put people in place of the computers here and the invention would work the same." *See* JA3430; *see also* JA3425,

---

[4] Hashing algorithms, which generate a small number that represents a pattern derived from the content of a file, were commonplace in the computer field at the time of the alleged invention. *See, e.g.*, JA748-49. The patent suggests one particular prior art algorithm but says that "any hashing algorithm can be utilized." JA246 (3:65–4:3).

JA3428-29; JA3441-42.[5] The '050 patent only purports to provide a system that operates more "quickly and efficiently." JA245 (2:13-16). But using computers to do "more quickly" or "more efficiently" tasks that could otherwise be performed by humans (albeit slowly or with more effort) is not enough. *Intellectual Ventures*, 792 F.3d at 1370; *OIP*, 788 F.3d at 1363; *Bancorp*, 687 F.3d at 1278. Collectively or individually, the features of the asserted '050 patent claims contribute nothing inventive.[6]

> **2.   IV Fails To Identify Anything Inventive And Misunderstands The Step Two Analysis**

IV suggests that the claims here add inventive elements because they (i) teach how generic computers can "function better *as* a computer"; (ii) improve virus and spam detection technology; (iii) were not found anticipated or obvious by the jury; (iv) do not wholly preempt any technological field because there are

---

[5] Contrary to IV's assertion (OB 36), any software engineer can "'manually' identify *digital* content" (emphasis in original)—the experts in this case even examined the source code of the accused products to determine their functionality and content. *See, e.g.*, JA744. And hashing files by pen and paper and comparing hashes is possible, though tedious and time-consuming without a computer.

[6] As the district court found (and IV does not contest), the '050 patent claims fail the machine-or-transformation test. JA26-27. Although not dispositive, that further confirms that the claims add nothing inventive because the claims are not tied to a particular machine (just generic computing technology) and the claims effect no transformation of an article (just data manipulation). *See, e.g.*, *Ultramercial*, 772 F.3d at 716-17; *CyberSource*, 654 F.3d at 1375.

potential noninfringing alternatives; and (v) include technological improvements like the claims in *DDR Holdings* and *Diehr*. None of IV's arguments has merit.

First, IV's suggestion that the claims include inventive elements that make a generic computer "function better *as* a computer," OB 45 (emphasis in original), is unfounded. There is nothing inventive about a "content identifier" created from a "mathematical algorithm" that causes a computer to function better. Nor is there any inventive improvement in requiring generic computers to receive data, determine characteristics by matching data, and transmit a result—those are, as discussed, all non-inventive generic computer functions. *See, e.g.*, *Alice*, 134 S. Ct. at 2359; *Content Extraction*, 776 F.3d at 1345; *buySAFE*, 765 F.3d at 1355; *see also supra* at II.B.1.[7]

Second, contrary to IV's assertion, the '050 patent claims do not represent an inventive improvement in "virus and spam detection" technology by "narrow[ing] the protection gap and solv[ing] the volume problem." OB 39-40. The claims nowhere recite the word "virus" or virus screening technology and

---

[7]   Contrary to IV's mischaracterizations, no Symantec witness described the '050 technology as "impressive" or as a "big leap." OB 11, 44. Mr. Nachenberg stated that it would have been "impressive" if he had developed Symantec's Insight system—which was held non-infringing by the jury—10 years before he actually did. JA1483. And the architecture of Symantec's *unaccused* software system *from 1997* that *preceded* the filing of the '050 patent was described as a "big leap" because it pushed virus definitions to local computers for local scanning—which IV claims is "conventional" technology. *See* JA1482; OB 43-45.

none of the claims asserted against Symantec mentions spam detection. In fact, the

PTO explicitly rejected *new* claims in the pending reexamination of the '050 patent

that include detection of a "virus" because there is no supporting disclosure. *See*

supra at Statement of the Case part I.A. Also, none of the claims discusses the

"protection gap" and "volume problem" that IV repeatedly invokes. *E.g.*, OB 8,

10-14, 32-37; *see, e.g.*, JA1327 (IV's expert admitting that the '050 patent does not

mention a "volume problem").

All of the purported benefits and features on which IV relies are drawn from

outside the claims (from the specification or otherwise) and so are irrelevant to the

§ 101 analysis. *See Accenture*, 728 F.3d at 1345 (inventive concept cannot be

drawn from the "very detailed software implementation guidelines" in the

specification because "the important inquiry for a § 101 analysis is to look to the

claim"); *Dealertrack*, 674 F.3d at 1334 (section 101 analysis only looks to "that

which the claims encompass, not what is disclosed but left unclaimed"); *Versata*,

793 F.3d at 1335 (holding that "supposed benefits" of "improvements in computer

performance" were "not recited in the claims" and thus did not support the claims'

eligibility). IV tried a similar approach in *Intellectual Ventures*, arguing that the

claims provided certain improvements, such as "dynamic presentation of data" and

"real time" customization of web pages, but this Court held that "[t]he claims

[were] not so limited," 792 F.3d at 1370, and found them to be invalid. IV's reliance on unclaimed features fails again here.

Regardless, even if the '050 patent claims were limited to virus or spam protection, that would, at most, be a technological field-of-use limitation that does not make the claims patent eligible. *See, e.g.*, *Alice*, 134 S.Ct. at 2358; *Intellectual Ventures*, 792 F.3d at 1366; *Dealertrack*, 674 F.3d at 1334. And even if the claims somehow solved the "protection gap" and "volume problem," that just means the claims perform the abstract idea more quickly or efficiently—which does not provide an inventive contribution. *See*, *e.g.*, *Intellectual Ventures*, 792 F.3d at 1367, 1370; *supra* at II.B.1. Indeed, in *Alice* itself, the claims also solved a "protection gap" and a "volume problem" (by "facilitat[ing] simultaneous" transactions, deferring transactions until the end of the day to ensure sufficient funds, and "track[ing] multiple transactions"). 134 S. Ct. at 2353, 2359 (citation omitted). Such benefits added nothing inventive there and would not save the claims here.

Third, IV's reliance on the jury's §§ 102 and 103 findings (OB 40, 45-46) improperly conflates patent eligibility (§ 101) with the requirements for patentability (§§ 102 and 103). As the Supreme Court explained in *Parker v. Flook*, the § 101 analysis "does not involve the familiar issues of novelty and obviousness that routinely arise under §§ 102 and 103." 437 U.S. 584, 588 (1978).

And this Court in *Ultramercial* explained that the possibility "[t]hat some of the [computer-implemented claim] steps were not previously employed in this art is not enough—standing alone—to confer patent eligibility upon the claims at issue" under § 101. 772 F.3d at 716. Moreover, the district court expressly prohibited Symantec from raising any § 101 issue in front of the jury, stating that it would resolve all such issues after trial. *See* JA5. IV's attempt to conflate § 101 with §§ 102 and 103 is unavailing.

Fourth, IV argues that the claims add something inventive because they do not "'preempt [the abstract idea] in all fields'" and several noninfringing alternatives have been advanced. OB 47 (citation omitted). That argument misses the mark. Although "preemption" is a motivating concern of the *Alice* analysis, it is not the test for patent-eligibility. In *Flook*, the Supreme Court long ago rejected the argument that claims are eligible as long as they do not "wholly preempt" an abstract idea. 437 U.S. at 589 (citation omitted). In *Bilski*, although certain claims were limited to hedging in the energy markets, they were still invalid because "the prohibition against patenting abstract ideas 'cannot be circumvented by attempting to limit the use of the [idea] to a particular technological environment' or adding 'insignificant postsolution activity.'" 561 U.S. at 610-11 (quoting *Diehr*, 450 U.S. at 191-92). And, in *Alice* and *Mayo*, the Court sought to address concerns about preemption by adopting the controlling two-step analysis for patent-eligibility. *See*

134 S. Ct. at 2354-55, 2358; *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1294 (2012); *see also Ariosa Diagnostics, Inc. v. Sequenom, Inc.*, 788 F.3d 1371, 1379 (Fed. Cir. 2015) ("[Q]uestions on preemption are inherent in and resolved by the § 101 analysis," so "[w]hile preemption may signal patent ineligible subject matter, the absence of complete preemption does not demonstrate patent eligibility."). At step two, courts must determine whether the claims add "enough" (i.e., something inventive) to "'transform' the claimed abstract idea into a patent-eligible application." *Alice*, 134 S. Ct. at 2357 (citations omitted). The claims here fail that test, and the fact that noninfringing products exist (like the accused products here) is irrelevant for § 101 purposes.

Finally, IV suggests that the asserted '050 claims provide an inventive technological improvement like the claims in *DDR Holdings* and *Diehr*. But those cases are inapposite. In *DDR Holdings*, the claims were directed to a website-specific problem and solution with no real world analogy—the problem of website visitors being "instantaneous[ly] transport[ed]" to another location, which does not happen outside the Internet. 773 F.3d at 1258. In contrast, the abstract classification concept at the heart of the '050 patent claims has pre-Internet (even pre-computer) analogues. *See supra* at II.A.1. As in cases like *Intellectual Ventures* (where IV also relied on *DDR Holdings*), IV's claims here "do not

address problems unique to the Internet, so *DDR* has no applicability." *Intellectual Ventures*, 792 F.3d at 1371.

But even if IV's claims were uniquely Internet- or computer-centric, that would not make them patent eligible. As *DDR Holdings* expressly cautioned, "*not all claims purporting to address Internet-centric challenges are eligible for patent.*" 773 F.3d at 1258. Although the technological nature of the claims was a condition necessary to the outcome in *DDR Holdings*, it was not sufficient—the claims still had to add something inventive. *Id*. Indeed, the claims in *DDR Holdings* "specif[ied] how interactions with the Internet are manipulated to yield a desired result—a result that overrides the routine and conventional sequence of events ordinarily triggered by the click of a hyperlink." *Id*. Thus, the claims there were held patent-eligible because they were tied to specific manipulations of "interactions with the Internet" that were tailored in a "specific way to automate the creation of a composite web page" and relied on several innovative "elements from multiple sources," each of which had definite limiting form. *Id.* at 1257-59; *see also Intellectual Ventures*, 792 F.3d at 1369-71. The asserted claims of the '050 patent include no such specific inventive features. *See supra* at II.B.1.[8]

---

[8]   To the extent IV's step *one* analysis also relies on *DDR Holdings*, it is particularly misplaced because the Court did *not* hold that the claims at issue were patent eligible at step one; it held that "under *any* of the[] characterizations of the abstract idea," the "claims satisfy *Mayo/Alice* step two." 773 F.3d at 1257.

The asserted '050 claims are also fundamentally different from those in *Diehr*. The claims there were directed to "an industrial process for the molding of rubber products," and the Court found them eligible because they "transform[ed] or reduc[ed] an article to a different state or thing." 450 U.S. at 192-93. The '050 claims perform no such transformation. *Diehr*, therefore, is inapplicable here. Indeed, in *OIP*, this Court recently rejected a patentee's similar reliance on *Diehr*, explaining that, read in light of *Alice*, "*Diehr* does not stand for the general proposition that a claim implemented on a computer elevates an otherwise ineligible claim into a patent-eligible improvement." *OIP*, 788 F.3d at 1364.

The '050 claims, like the ones in *Alice*, *Intellectual Ventures*, and numerous other cases, include no inventive elements beyond an abstract idea restricted to use on a computer. The district court correctly found them invalid under § 101.[9]

III.   THE ASSERTED '142 PATENT CLAIMS ARE INVALID UNDER § 101

The asserted claims of the '142 patent merely state "an abstract idea while adding the words 'apply it with a computer.'" *Alice*, 134 S. Ct. at 2358. The district court's judgment holding them invalid under § 101 should be affirmed.

---

[9]   IV (OB 41) and amici (Kesan Amicus Brief 4-5) suggest that finding the asserted '050 patent claims ineligible will effectively invalidate all software patents. The courts have repeatedly rejected that policy argument. *See, e.g.*, *Benson*, 409 U.S. at 71 ("It is said that the decision precludes a patent for any program servicing a computer."); *DDR Holdings*, 773 F.3d at 1259 (finding software patent eligible under § 101).

A.   The '142 Patent Claims Are Directed To The Abstract Idea Of Distributing Messages Based On Their Characteristics

1.   The Distribution Concept Is An Age-Old Abstract Idea

The asserted '142 claims are directed to the abstract idea of distributing messages based on characteristics, such as origin, content, or addressee. *See* JA2798-803; JA2920-22. Each of the claims asserted against Symantec recites the basic steps for a "post office" that receives e-mails and applies unspecified "business rules" based on the messages' characteristics to perform some action on the messages instead of sending them directly to their intended recipient. *See* JA238-40 (cls. 1, 7, 21, 22); *supra* at Statement of the Case part I.B.; *Content Extraction*, 776 F.3d at 1348-49 (holding it is proper to base a § 101 analysis on representative claims where all claims are substantially similar and directed to the same abstract idea). As the specification explains, that purported "invention" allows a company to "implement business communication policies for controlling the handling of e-mail messages." JA226 (3:3-7). The "business rules" applied at the "post office" could, for example, "delet[e]" or "return[]" the message, set it aside for "further review," or "forward[]" it "to a new recipient"—all based on the origin of the message (e.g., from outside the company), content of message (e.g., a reference to a certain "product name"), or intended recipient of the message (e.g., "the president of the company"). JA226 (3:29-61).

41

That fundamental business concept had been known and practiced for decades prior to the filing of the '142 patent. The patent itself explicitly acknowledges that "[m]any corporate organizations" applied the same idea before the introduction of e-mail to "control the flow of . . . printed information within the organization" by routing mail and memoranda to particular departments based on author, content, or addressee. JA225 (1:15-34). Those business rules were performed by human beings distributing documents manually through the "personnel, human resources, or other departments" of corporations. *Id.* (1:31-34). Similarly, the United States Postal Service routinely alters the normally unabated delivery of mail by applying business rules based on characteristics of certain mail items—such as forwarding mail to addressees who have moved, holding mail for recipients on vacation, intercepting and diverting potentially dangerous mail for review if addressed to high profile places such as the White House, or rerouting mail addressed to Santa at the North Pole to North Pole, Alaska. During World War II, the Postal Service even rerouted soldiers' mail to inspectors who opened it and deleted references to "ship, plane and troop movements" before delivering it. JA3318, 3321-24, 3331-37.

The chart below details an example of how the abstract idea at the heart of the asserted claims of the '142 patent could easily be (and routinely is) performed by humans. *See also* JA37-39; JA2802-03.

42

Explanation of Claim Elements by IV's Expert	Mailroom in Corporation
"receiving" step: A "post office" receives email (JA865-66);	Company mailroom receives invoice for marketing materials that is addressed to company's CEO;
"deferring" step: post office will "reroute the e-mail" with record of business rules that apply and a "new distribution list, which is really just the new place it's heading to" (JA866);	company mailroom reroutes invoice to marketing department with routing slip that indicates it is a bill for marketing materials;
"delivering" step: email is delivered to holding area, such as a "quarantine," for further review (JA866);	mailroom delivers invoice to marketing department for review by supervisor;
"storing" step: email stays in holding area awaiting review (JA866);	invoice stays in marketing department pending review;
"reviewing" step: "administrator would review" email and "say, yeah that one is spam, no that one is not," (JA866);	marketing department supervisor reviews invoice to determine if the invoice is legitimate and should be paid or not;
"applying" step: message "go[es] on" if not spam (JA866).	marketing department routes invoice on to accounting department for payment if legitimate.

43

The inventors readily admitted the abstract idea embodied in the '142 claims simply provided organizations with the same level of control over e-mail communications that they already had over printed materials. *See, e.g.*, JA3301. And the inventors understood that every "business rule[]" described by the patent could be "implemented or applied to a paper piece of mail." JA3311. Their description of the invention was even intertwined with the basic concept of postal mail:

> You take [a letter] out to your mailbox. The letter carrier comes, grabs it and they deliver it. Okay. Now I've got somebody basically stopping the letter carrier, going in, reaching into the mail bag, pulling out the message, opening it up and looking at it, okay, and saying, hmm, based upon this criteria, I'm going to let it go through or I'm just going to take it for a while. . . . [T]hose actions . . . were completely definable by the business at the time.

JA3302.

IV described the invention in similar fashion, explaining that it was directed to a basic, fundamental idea for delivering mail—just done more quickly for e-mail by a computer. "Conceptually, this post office is *not much different than a United States Postal Service office that processes letters and packages*, except that the process is all computer-implemented and done electronically *in a matter of seconds.*" JA3351, 3398; *see* JA40. And, on appeal, IV admits that the distinction between paper mail and electronic mail is only a function of ubiquitous,

44

conventional technology: "Yes, receiving emails is conventional computer and Internet functionality . . . ." OB 53.

The concept of routing mail by characteristics such as origin, content, or addressee is a business method that is at least as longstanding and abstract as the patent-ineligible intermediated settlement idea in *Alice* and the patent-ineligible risk-hedging idea in *Bilski* (both of which were also executed on computers). And the '142 claims are just as abstract as the ideas underlying other computer-implemented claims this Court has held invalid under § 101, such as customizing and displaying web pages based on the user's characteristics and web browsing history (*Intellectual Ventures*, 792 F.3d at 1369-71); extracting data from a document, reviewing the data for information, and storing particular information meeting certain conditions (*Content Extraction*, 776 F.3d at 1348); "generating tasks [based on] rules . . . to be completed upon the occurrence of an event" (*Accenture*, 728 F.3d at 1344 (alterations in original) (citation omitted)); reviewing information to separate it into different categories and distribute it (*Cyberfone Sys. LLC v. CNN Interactive Grp., Inc.*, 558 F. App'x 988, 992 (Fed. Cir. 2014)); and using "a set of expert rules for evaluating and selecting from . . . different therapeutic treatment regiments" (*SmartGene, Inc. v. Advanced Biological Labs., SA*, 555 F. App'x 950, 955 (Fed. Cir.) (citation and internal quotations marks omitted), *cert. denied*, 135 S. Ct. 58 (2014)). Under that precedent, the asserted

45

'142 patent claims are undeniably drawn to an abstract idea, as the district court correctly held.

2.   The Distribution Concept Is Abstract Regardless Of The Claims' Computer Steps And Limitations

IV repeats essentially the same arguments for the '142 patent claims that it made for the '050 claims (and that it made unsuccessfully to this Court in *Intellectual Ventures*). Once again, its positions are without merit.

IV contends that the asserted '142 claims are not directed to an abstract idea because they recite certain computer limitations—i.e., they "handle[] only" distribution of email and other "*computer* data." OB 50 (emphasis in original). But, as discussed, an abstract idea "does not become nonabstract by limiting [it] to a . . . technological environment," such as a computer. *Intellectual Ventures*, 792 F.3d at 1366; *see supra* at II.A.2 (discussing numerous decisions invalidating computer-implemented claims). Just as this Court found claims directed to abstract ideas despite being limited to web pages (in *Intellectual Ventures*), electronic messages over a network (in *OIP*), and functionality of electronic forms (in *Internet Patents*), the claims here are directed to an abstract idea despite applying to electronic messages.

IV similarly argues that the '142 claims are uniquely computer-centric because email is not of "ancient lineage," has specific "protocols," requires "distinct software components," and would normally be delivered "unabated." OB

46

48-52. And IV urges that screening email and "quarantin[ing]" email (a term appearing nowhere in the patent) "never happens outside of a computer." OB 52. The same, however, could be said of the web page customization claims in *Intellectual Ventures*: web pages are not of "ancient lineage," have specific "protocols" (such as HTTP), require "distinct software components" (including an "interactive interface"), would normally be delivered without customization, and are not customized and displayed "outside of a computer." *See* 792 F.3d at 1369-71. This Court nonetheless found the claims directed to the abstract idea of customizing content based on user characteristics and analogized to the well-established brick-and-mortar context of customizing inserts in newspapers, which had been done for decades. *Id.* at 1369. The same is true here: the claims are directed to the abstract idea of tailoring distribution of electronic messages based on characteristics of the author, message, or recipient and are well-grounded in the brick-and-mortar analogues discussed. Indeed, businesses and the Postal Service normally deliver memoranda and messages to addressees "unabated" by review— which is why they came up with the very business rules the patent simply applies on a computer.[10]

---

[10] IV's observation that "Symantec did not argue to the jury that it manually sorted printed documents differently or that anything related to 'snail mail' invalidated the asserted claims" (OB 52) is irrelevant and highlights IV's misunderstanding of the step one analysis. The analysis turns on whether the

At bottom, notwithstanding IV's inflated view of the asserted '142 claims, they are at root directed to the abstract distribution idea that is normally performed by humans. In fact, key steps in the claimed process are still performed by humans: "A gatekeeper is a *human* administrator assigned a gatekeeper role and having responsibility for reviewing gated messages," JA227 (6:5-7), and can be an "HR Administrator," JA219 (fig. 17), or a "corporate administrator," JA226 (4:44-47).

The district court correctly held that the asserted '142 claims are directed to nothing more than the "abstract idea of implementing well-known post office functionality using a computer"—i.e., distributing messages based on their characteristics. JA40.

B.   The Asserted '142 Claims Add Nothing Inventive To The Abstract Distribution Idea

The remaining elements in the asserted '142 claims beyond the abstract distribution idea include no "inventive concept." *Alice*, 134 S. Ct. at 2357-59; *see also* JA2804-07. They are nothing more than generic computer components and conventional computer functions recited free of any special programming or specific algorithm. IV's arguments to the contrary again rely on its misunderstanding of the step two analysis.

---

claims are, at heart, directed to an abstract idea, not on whether they include computer limitations. *See supra* at II.A.2.

1.   Recitation Of Generic Computer Components And Functions Adds Nothing Inventive To The '142 Claims

To distribute email, the asserted claims discuss using undefined generic computer components, such as a "post office," "receipt mechanism," "rule engine," "distribution engine," "message store," and "database," to perform conventional computer functions, such as "receiving," "storing," "reviewing," "selecting," "combining," and "delivering" digital email messages. JA238-40 (cls. 1, 7, 21, 22). Those nebulous components have no limiting or inventive structure and those functions are simple, well-known, and conventional computer functions. Indeed, the claim constructions agreed upon by the parties (JA3191-92) and adopted by the Court (JA265-74) are also highly general. For example, IV agreed that the "receipt mechanism," "distribution mechanism," and "distribution engine" could be any "mechanism" that performs those functions. JA3192.

The patent itself emphasizes that the claimed inventions need nothing but generic technology to operate on rules contributed by humans (and, many times, enforced by humans). The supposedly inventive "rule enforcing post office" is "implemented as software products executing on *conventional* server-class computers . . . operat[ing] in conjunction with *conventional* operating systems." JA229 (9:51-58). The "e-mail client applications" that connect to it are "*conventional*" ones that are "capable of generating and receiving e-mail messages in a *conventional* manner." JA227 (5:58-62). The receiving, routing, rule, and

49

distribution "engines" at the heart of the special post office operate on a "*conventional* communications network" with "*conventional* e-mail protocols" and function to: receive e-mails using a "*standard* communication protocol interface"; route e-mails "with routing tables in a *conventional* manner"; apply "business rules [that] are preferably consistent" with *existing* real-world "business communication policies" that were created by humans; and deliver e-mail using "*conventional* mail protocols" and "*conventional* functionality for transferring messages." JA226-29 (3:24-28, 5:45-55, 6:5-24, 6:36-40, 6:51-55, 7:7-10, 9:51-58, 9:63–10:5). And the "significant" step of reviewing the held messages requires no computer at all, and a "*human* administrator" is the "gatekeeper" who "defines [the] various business rules for handling e-mail messages." JA227-29 (6:5-7, 7:9-15, 9:63–10:6, 10:54-57); *see also supra* at III.A.2.

The computer functions and components recited in the '142 claims are indistinguishable from the ones the Supreme Court and this Court have previously found non-inventive. For example, in *Alice*, the Supreme Court held that reciting "purely functional and generic" components such as a "communications controller" and "data storage unit" and "purely conventional" computer functions such as receiving, modifying, storing, and transmitting data added nothing inventive. *Alice*, 134 S. Ct. at 2357-60. In *Intellectual Ventures*, this Court held that reciting "conventional computer components, such as a database and

processors" and a "web server with attendant software," and using a computer for "tailoring information" based on the "user's personal characteristics" and "providing it to the user" on a webpage is non-inventive. 792 F.3d at 1369-71 (citation omitted). And in *Accenture*, this Court held that using a computer to "appl[y] rules to [an insurance] transaction to determine tasks to be completed" and give "authorized" users access to those tasks—using components such as "database[s]," an "event processor," a "task engine," a "client component," and a "task assistant"—is non-inventive. 728 F.3d at 1338-39; *see also, e.g.*, *Internet Patents*, 790 F.3d at 1349 ("collect[ing]" data or "dynamically generat[ing]" electronic documents "in response to" that data, files "merge[d]" with it, or user input is non-inventive); *Content Extraction*, 776 F.3d at 1348 (non-inventive to simply review a document to "extract data" or draw general conclusions about it (or a data set)); *buySAFE*, 765 F.3d at 1355 ("receiv[ing]" and "transmit[ting]" data are "not even arguably inventive"); *Cyberfone*, 558 F. App'x at 991-92 ("using categories to organize, store, and transmit information" is non-inventive). The same conclusion follows here for the computer features of the '142 patent claims.

The asserted claims, moreover, entirely fail to "specify how the computer hardware and database are specially programmed to perform the steps claimed." *Dealertrack*, 674 F.3d at 1333 (citation omitted). There are no specific algorithms,

51

system logic, program instructions, or special hardware to carry out the claimed functions.   That lack of specificity allows the underlying methodology to be performed "by human thought alone," *CyberSource*, 654 F.3d at 1373, without a computer—a point with which the inventors agreed. *See* JA3302; JA3311.   As explained, the patent even claims that a human is key to the operation of the claimed invention. *See* JA227-29 (6:5-7, 7:9-15, 9:63–10:6, 10:55-57).[11]

Thus, the asserted '142 claims' limitations (individually or collectively) "amount to 'nothing significantly more' than an instruction to apply the abstract [distribution] idea . . . using some unspecified, generic computer" components—which is "not 'enough' to transform [the] abstract idea into a patent-eligible invention." *Alice*, 134 S. Ct. at 2360 (citation omitted). Nor is it enough that the '142 claims perform the abstract distribution idea "more quickly" or "more efficiently" to email on a computer. *Bancorp*, 687 F.3d at 1278-79; *see Internet Patents*, 790 F.3d at 1349 (invalidating claims directed to solving computer-specific problem with abstract idea). The district court did not err in finding that the '142 claims "lack an inventive concept" and holding them invalid under § 101. *See* JA42-43.

---

[11] The district court also found (and IV does not contest) that the '142 patent claims fail the machine-or-transformation test—further evidence that the claims are ineligible under § 101. JA42-43.

2.   IV Fails To Identify Anything Inventive And Repeats Its Misunderstanding Of The Step Two Analysis

IV argues that the '142 claims embody an inventive concept because (i) the jury found them infringed and not invalid under §§ 102 and 103, (ii) they are an "unconventional" "specific way" of using generic computing technology, and (iii) they do not "even preempt the narrow field of email filtering using business rules, a quarantine, and administrator review." OB 53-56 (emphasis removed). Once again, IV's arguments are unfounded and based on a misapprehension of governing law.

First, the jury's findings on infringement and validity do not "reinforce[] the notion that the asserted claims" are directed to a "new and useful" application of the abstract distributing idea. OB 53. Whether an invention is "new and useful" is not part of the infringement inquiry and, as discussed, validity under § 101 is separate from §§ 102 and 103. *Supra* at II.B.2. In fact, the parties were precluded from addressing § 101 during trial and the jury was not instructed on § 101. *See* JA5. IV's logic, moreover, is exactly backward—the more vague, non-specific, and abstract a claim is, the broader it is, and therefore the easier to infringe.

Second, IV's assertion that the '142 patent discloses a "specific" inventive way to screen email is also unavailing. *See* OB 53. IV admits that email is conventional technology but contends that there is a supposedly overlooked inventive aspect of the claims (which it articulates in three different ways):

53

(1) "applying business rules to email is not what computers and the Internet do";

(2) "computers and the Internet do not have 'rule engines'"; (3) and conventional

email "post offices are not designed to apply business rules . . . which either

intentionally delay or prohibit delivery of e-mail." OB 53-54.[12] But "applying [a]

business rule[]" through a "rule engine" to "delay or prohibit delivery of e-mail" is

nothing more than the non-inventive step of applying the abstract distribution idea

on a generic computer to admittedly (OB 53) "conventional" email. *See Alice*, 134

S. Ct. at 2360.

In fact, there is nothing "specific" in the descriptions IV provides—only

conventional technology enabling those supposedly inventive applications of the

abstract distribution idea. *See supra* at III.B.1. The claims have no limiting

structures, no unconventional features, and address simple, well-known, and

conventional functions that any computer could perform. *Id*. Even the "rule

engine" that IV touts is nothing more than an undefined, generic way of applying

business rules that are consistent with existing "business communication policies"

of a company and are created (and many times fulfilled) by a "*human*

administrator*." JA227-29 (6:5-18, 7:9-15, 9:63–10:6, 10:55-57). And simply

---

[12] IV has waived any argument as to any other supposedly inventive aspect of the claims by not raising it in its opening brief. *See SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1319 (Fed. Cir. 2006).

applying the abstract distribution idea to conventional email on a computer with generic computer solutions—reciting, at most, a "software" "brain" for performing the idea (just like the claims in *Intellectual Ventures* and other cases)—is not enough to make the '142 claims inventive. *See Intellectual Ventures*, 792 F.3d at 1371; *supra* at II.A.1. The "rule engine" is no more inventive, for example, than the non-inventive "task engine" in *Accenture* that "identifie[d] rules in the task library database associated with the event and applie[d] the information to the identified rules to determine the tasks to be completed," 728 F.3d at 1339, or the non-inventive "interactive interface" in *Intellectual Ventures* that customized web content, 792 F.3d at 1370.

And IV's attempt to bolster the asserted '142 claims by tying them to the Internet in a veiled attempt to invoke *DDR Holdings* (OB 53-55) is meritless. The Internet is not recited or required by the claims and is mentioned in the patent only twice—once in passing as a conventional communications network and again as a descriptor of an "existing e-mail protocol." JA225, 227 (1:65-67, 5:45-47). In any event, the Internet would not save the claims just as it did not in *Intellectual Ventures*, *Internet Patents*, *buySAFE*, and *Ultramercial*. Nor does *DDR Holdings* compel a different outcome. Because the '142 claims "do not address problems unique to the Internet, . . . *DDR* has no applicability." *Intellectual Ventures*, 792 F.3d at 1371; *see supra* at III.A.1 (discussing brick and mortar analgoues); *supra* at

II.A.2 (discussing *DDR Holdings*). Also, unlike the claims in *DDR Holdings*, the '142 claims are directed to an easily identifiable and longstanding business practice and add nothing "specific" and "inventive." 773 F.3d at 1257-58.

Third, IV's preemption argument—that claims must preempt use of an abstract idea "in all fields" and that the asserted '142 claims preempt essentially nothing—is doubly flawed. OB 55-56. As discussed, preemption is an animating principle of the § 101 analysis, not the test itself—courts determine whether claims are unduly preemptive using the two-part *Alice* framework. *See supra* at II.B.2. Although IV cites five potential non-infringement examples, that does not show the claims add something inventive and make the claims eligible.[13] OB 56. In *OIP*, for example, this Court rejected a similar argument: "that the claims do not preempt all price optimization or may be limited to price optimization in the e-commerce setting" does not make them eligible under § 101. 788 F.3d at 1362-63. And claims with numerous limitations that could be avoided for infringement purposes have been struck down before by this Court. *See, e.g.*, *Ultramercial*, 772 F.3d at 712 (eleven-step method not patent eligible); *Accenture*, 728 F.3d at 1338

---

[13] IV's view of the field to be preempted is unfoundedly narrow: a "quarantine" is not claimed (nor even mentioned once in the patent) and "administrator review" is performed by a *human* doing exactly what the abstract idea calls for—sorting messages by characteristics such as origin, content, or addressee. JA227-29 (6:5-24, 7:9-15, 9:63–10:6, 10:55-57).

(claims required numerous specific computer components and functions). In any event, the '142 claims carry a substantially broad preemptive footprint. *See supra* at III.A.1 & III.B.1. IV's preemption argument is unavailing.

The district court correctly found the '142 patent claims added nothing inventive to the abstract idea.

*   *   *

All of the asserted claims of the '050 and '142 patents are directed to patent-ineligible abstract ideas performed on generic computing technology. IV's attempts to salvage the claims are based on fundamental misunderstandings of the *Alice* framework. When that governing framework is applied properly, the conclusion of invalidity is inevitable. The district court's judgment as to the '050 and '142 patents should be affirmed.

Symantec's Cross-Appeal

IV.   THE ASSERTED '610 PATENT CLAIM IS INVALID UNDER § 101

The district court erred in holding that claim 7 of the '610 patent is not invalid under § 101. The claim is directed to the patent-ineligible abstract idea of screening for and removing harmful content from deliveries at an intermediary location before receipt by an addressee. That abstract concept has been known for millennia and applied in a wide variety of settings by, for example, Postal Service employees, customs agents, and agricultural inspectors. Claim 7 contributes nothing "inventive" to that concept, adding only non-specific generic computer components and functions for applying it to electronic messages, which does not make the claim eligible under § 101.

To conclude that claim 7 qualified as patent-eligible, the district court erroneously relied on disclosures in the written description that are not limitations of the claim and misapplied *DDR Holdings* to conclude that "virus detecting" cannot be an abstract idea because it is "necessarily rooted in computer technology to overcome a problem specifically arising in the realm of computer networks." JA49 (quoting *DDR Holdings*, 773 F.3d at 1257-59). A proper § 101 inquiry focuses on the limitations in the asserted claim—not unclaimed features discussed in the specification. And this Court's recent guidance in *Intellectual Ventures* (where IV made essentially the same arguments as it repeats here), *Internet*

58

Patents, and *OIP* (all of which post-date the district court's decision) conclusively

demonstrates that grounding a claim in a particular field of technology does not

satisfy § 101 and refutes the district court's application of *DDR Holdings*. The

district court's judgment holding claim 7 patent-eligible should be reversed.

A.   Claim 7 Of The '610 Patent Is Directed To The Abstract Idea Of Screening For And Removing Harmful Content From Deliveries At An Intermediary Location Before Receipt By An Addressee

1.   The Intermediary-Screening Concept Is An Age-Old Abstract Idea

Claim 7 requires the steps of "receiving" and "routing" a call "within a

telephone network" through an intermediary that can screen for computer viruses,

"determining" whether to screen the call based on the identity of the calling or

called party, and "detecting" and "inhibiting" harmful viruses before the call

reaches the called party. JA197-198 (cls. 1, 7). The "basic concept" of claim 7,

therefore, is not screening for computer viruses—which was a well-known practice

in the art, as the patent itself states. *See* JA191, 196 (1:10-11, 12:26-30); JA2432-

34; *Dealertrack*, 674 F.3d at 1333 (looking to "basic concept" of claims in

"simplest form"). Rather, as IV explained below, the heart of the claim is

specifying *where* to perform virus screening ("within the telephone network"). *See*

JA3545; *Ultramercial*, 772 F.3d at 714 (examining "heart" of the claims). Indeed,

the requirement to perform virus screening "within the telephone network" was the

sole reason the PTO allowed the claim over prior art.[14] *See* JA2432-34; JA3575, 3706-08; *see also* JA3686-710; *Internet Patents*, 790 F.3d at 1347-48 (looking to purportedly innovative aspect of claims to help determine whether "the essential, 'most important aspect'" was an abstract idea).

Thus, claim 7 is directed to the age-old abstract idea of screening deliveries and removing harmful content at an intermediary location before receipt by an addressee. *See* JA2815-19; JA2923-24. That basic idea has been routinely applied in a wide-range of fields. For example, the Postal Service screens and removes dangerous content from envelopes and packages destined for secure facilities, agriculture inspectors screen and destroy harmful contaminants from food products in transit from farm to market, and customs officials screen and remove dangerous goods from domestic imports before they reach their final destination.

The table below illustrates several specific applications of claim 7's abstract intermediary-screening idea. *See also* JA2817-18.

---

[14] The inventors admitted—and IV did not dispute—that every element of claim 7 besides screening data "within the telephone network" was well-known in the prior art, including "antivirus screening" itself. *See* JA191, 196 (1:10-11, 12:26-30); JA3449; JA3459, 3461-62; JA1711-26; JA3569-72. And there is even no dispute that the prior art also included a system practicing the abstract intermediary-screening idea by screening for viruses "within the telephone network," as required by claim 7. *See* JA2377 (testimony of IV's validity expert: "Q: You don't dispute that the [prior art] does detect for viruses within a telephone network, do you? A: No."); *see also* JA1481-82; JA2071-72; JA3498-99; JA3555-57; JA3771, 3774-75, 3781-82 (figs. 3, 4; 3:51-55, 6:41-62).

Explanation of Claim Elements By IV's expert	Postal Screening	Customs Clearance
"routing" step: Email is routed from sending party to a "party receiving" it through an "email server" capable of scanning for viruses (JA788-90);	Mail to federal prisons is routed through secure offsite postal inspection facility;	Food imports destined for US supermarkets are routed through customs agricultural inspection facility;
"receiving" step: the "email server" receives an email destined for the receiving party (JA790);	postal inspection facility receives a box destined for prison;	customs inspection facility receives imported food destined for US supermarket;
"determining" step: "the email is going to be checked to see whether or not it should be processed" based on the identity of the sender or recipient, (JA789-90);	postal inspection facility determines the box should be screened for dangerous contraband because it is addressed to a prisoner, not an employee;	customs inspection facility determines that food import should be screened because sender is located in a country with known invasive agricultural diseases;
"detecting" step: "a scanning of the e-mail" occurs, (JA790);	box is screened for contraband;	food import is screened for agricultural diseases;

Explanation of Claim Elements By IV's expert	Postal Screening	Customs Clearance
"inhibiting" step: "if [email server] does find a virus, it's going to block it," (JA791).	inspector at postal facility finds contraband and removes it prior to delivery of the box to the prisoner.	inspector at customs facility discovers some diseased food and destroys it before delivery of remaining food to supermarket.

The Supreme Court and this Court have found very similar intermediary-screening ideas to be abstract and not patent-eligible—even when (as here) they are applied on a computer. In *Alice*, the Court found ineligible claims directed to routing digital transaction information through an intermediary "third party to mitigate settlement risk," which permitted only certain safe, fully-funded digital transactions to occur upon receipt of instructions by the intermediary. 134 S. Ct. at 2356. In *Dealertrack*, this Court found ineligible an intermediary computer system that received loan data from car dealers, "selectively forward[ed]" it to financial institutions, and provided replies back to the dealers to reduce the risk of transactions. 674 F.3d at 1331; *see also Ultramercial*, 772 F.3d at 712 (computer intermediary permitting Internet users to receive free media content if certain conditions were met); *Cyberfone*, 558 F. App'x at 991-92 (telephone-based intermediary receiving, categorizing, and resending data).

And as in those (and numerous other) cases, the basic intermediary-screening idea of claim 7 does not become nonabstract simply because it is recited as a series of computer implemented steps in a particular technological environment (screening for computer viruses). *See, e.g.*, *Alice*, 134 S. Ct. at 2356 (abstract idea limited to certain computer implementations); *Intellectual Ventures*, 792 F.3d at 1369-71 (web pages); *Content Extraction*, 776 F.3d at 1348-49 (optical character recognition technology); *see also supra* at II.A.2 (discussing cases).

2.   The District Court's Contrary Conclusion Is Inconsistent With This Court's Precedent

Relying on IV's interpretation of *DDR Holdings*, JA49, the district court reasoned that claim 7 is not directed to an abstract idea because the claimed method cannot be performed in "the human mind" and instead concerns screening a "*computer virus*, which has computer-centric implications that cannot be abstracted away so broadly," JA44 (emphasis in original). The court misapplied the law.

First, as discussed, this Court has repeatedly rejected any such "human mind" requirement—for example, in *Intellectual Ventures* (where IV advanced it unsuccessfully) and in *Content Extraction*. *See supra* at II.A.2. In those cases, the claims were limited to certain computer environments with multiple technological requirements (tailoring *web page* content based on user characteristics in *Intellectual Ventures*, 792 F.3d at 1369, and extracting data from documents using

63

computer scanners and *optical character recognition technology* in *Content Extraction*, 776 F.3d at 1347-49). Nonetheless, this Court found that the claims were *not* uniquely computer-centric and were instead directed to abstract ideas that humans had long performed. *See Intellectual Ventures*, 792 F.3d at 1369-70; *Content Extraction*, 776 F.3d at 1347-49. As the Court explained in *Intellectual Ventures*, "[a]n abstract idea does not become nonabstract by limiting the invention to a particular field of use or technological environment, such as the Internet" and where (as there) claims "do not address problems unique to the Internet, . . . *DDR* has no applicability." 792 F.3d at 1366, 1371. The same is true here. The abstract intermediary-screening idea of claim 7 is not computer-centric (let alone "Internet-centric," as the district court erroneously determined)[15] and has long been practiced outside of computing technology. *See supra* at IV.A.1; *see also* JA2918-20. And using routine virus scanning technology to recognize and extract harmful content from digital data does not make the underlying intermediary-screening concept any less abstract.

Second, even if claim 7 were uniquely "computer-centric," it is still directed to an abstract idea. Just as in cases like *Benson* and (recently) *Internet Patents*, *see supra* at II.A.2, viewing claim 7 as rooted in a particular computer technology does

---

[15] Claim 7 does not require the Internet to operate. *See, e.g.*, JA191 (2:1-24, 2:50-55); JA274-77; *supra* at IV.A.1.

not change the fact that it is directed to the patent-ineligible abstract idea of screening and removing harmful content from deliveries at an intermediary location before delivery to a recipient. *DDR Holdings* does not support the district court's contrary ruling. In that case, unlike the district court believed, this Court did not create a blanket rule that *any* technology-centric claim survives § 101. Rather, this Court emphasized that "*not* all claims purporting to address Internet-centric challenges are eligible for patent." 773 F.3d at 1258. In fact, this Court did not even resolve the step one issue—it assumed there *was* an abstract idea and resolved the § 101 question at step two (*see supra* note 8), finding that the claims included a "specific" and "inventive" way to manipulate "interactions with the Internet" that was not "routine and conventional." *Id.* at 1257-59; *see also Intellectual Ventures*, 792 F.3d at 1371. Claim 7 adds no such features and thus fails step two, as discussed below. *Infra* at IV.B.1.

The district court erred in finding that claim 7 is not directed to an abstract idea based on the recitation of a generic virus scanning limitation and *DDR Holdings*. At root, claim 7 is drawn to the abstract and well-known idea of screening and removing harmful content from deliveries at an intermediary location before delivery to a recipient.

B.   Claim 7 Of The '610 Patent Adds Nothing Inventive To The Abstract Intermediary-Screening Idea

1.   Claim 7's Recitation Of Generic Computer Components And Functions Adds Nothing Inventive

Claim 7 adds nothing inventive to the abstract intermediary-screening idea—it is a sweepingly broad application of that basic concept, without any meaningful limitation beyond conventional computer functions and generic computer technology. *See* JA2819-20.

None of the functions that claim 7 requires to apply the intermediary-screening idea are inventive: "routing," "receiving," processing, and "inhibiting" data are conventional and routine computer functions. *See, e.g.*, *Alice*, 134 S. Ct. at 2359 ("receiving" and "outputting" data are "[p]urely conventional" (citation omitted)); *CyberSource*, 654 F.3d at 1372 ("detecting . . . fraud based on information relating past transactions" is not inventive); *supra* at II.B.2 & III.B.2 (discussing additional cases). Even scanning for viruses is a wholly conventional and long-known computer function. *See supra* at IV.A.1; *see also* Statement of the Case part I.C. At most, scanning for viruses is a mere field-of-use limitation (limiting to a particular technological environment and type of data) and that does not make claim 7 patent-eligible—just as processing particular types of data using certain computer technology did not save the claims in cases like *Content Extraction* (scanning data extracted from hard copy documents) and *Dealertrack*

66

(computer-processed auto loan data). *See supra* at II.A.2. And the "determining" step (the only limitation added to claim 1 by claim 7) is nothing more than the non-inventive generic function of matching data (nonspecific "identification" codes, which could be as simple as the "telephone number associated with a called party"). JA193 (5:16-19); *see, e.g.*, *Content Extraction*, 776 F.3d at 1345 ("recognizing portions of . . . documents corresponding to" a particular set of criteria is not inventive); *CyberSource*, 654 F.3d at 1375 (matching information about Internet addresses is not inventive); *Planet Bingo*, 576 F. App'x at 1007-08 ("assigning a player identifier and a control number" is not inventive); *see also* JA2078 (matching identification information is "very basic" and well-known concept in the art).

The systems required to perform the method of claim 7 are wholly generic and non-inventive too. There is no specialized hardware, software, or computer algorithm required by the claim language. *See, e.g.*, *Dealertrack*, 674 F.3d at 1333 (ineligible claims did not "specify how the computer hardware and database are specially programmed to perform the steps claimed" (citation omitted)); *Content Extraction*, 776 F.3d at 1349 (ineligible claims "merely describe[d] generic optical character recognition technology, which . . . was a routine function of scanning technology at the time the claims were filed"). As the patent explains, the recited methods can be performed with a "*conventional* telephone network processor" that

67

can be "located *anywhere*" in any analog, digital, or cellular network and that can run *any* nonspecific "virus screening software." *See* JA191-92, 196-97 (2:1-24, 2:50-55, 3:34-38, 3:49-51, 12:27-31, 12:43-58, cl.1); JA274-77.

In addition, IV advocated for, and obtained, sweeping claim constructions under which the "telephone network" required by claim 7 can be virtually *anything* between a sending and receiving party. *See, e.g.*, JA274-77; JA790. The district court erred in adopting IV's constructions related to that term. In light of intrinsic and extrinsic evidence, claim 7 should be limited to routing a call by determining a communication path on telephone lines and "within the telephone network" should be interpreted as "in and between nodes that communicate signals between pairs of telephone lines." *See* JA274-77; JA3207, JA3244-51; JA3260, JA3286-89. But under any construction, claim 7 adds nothing inventive to the abstract intermediary-screening idea because it recites no specialized, non-generic computer system or function. *See, e.g.*, *Alice*, 134 S. Ct. at 2360 ("communications controller" is non-inventive); *Content Extraction*, 776 F.3d at 1348 (extracting data using conventional scanners is non-inventive); *Cyberfone*, 558 F. App'x at 991-92 (entering data using conventional telephone technology is non-inventive).

Claim 7 (as construed) preempts almost any system for, or method of, virus detection that occurs while data is in transit to a recipient over a network. The

'610 inventors cannot lay claim to such a wide swath of potentially inventive activity by merely reciting the abstract intermediary-screening idea and "adding the words 'apply it'" on a computer. *Alice*, 134 S. Ct. at 2358. Limiting the claims to a particular technological environment (screening for computer viruses) does not make claim 7 any more specific and thus patent-eligible—just as the claims in *Content Extraction* were not eligible despite limiting the data extraction method using routine optical character recognition technology, 776 F.3d at 1345, and just as the claims in *Intellectual Ventures* were not eligible despite limiting the content customization idea to tailoring web pages in an interactive interface, 792 F.3d at 1369-71. *See also, e.g.*, *Alice*, 134 S. Ct. at 2358; *Bilski*, 561 U.S. at 612; *Dealertrack*, 674 F.3d at 1333-34; *supra* at II.A.2.

Claim 7 also fails the machine-or-transformation test: it is agnostic as to the type of computer hardware, software, or networking technology necessary to implement the claimed steps (so is not tied to a particular machine), and it involves "the mere manipulation or reorganization of data" (so does not "transform[]" anything). *CyberSource*, 654 F.3d at 1375. That further confirms that the claims add nothing inventive at *Alice* step two. *See, e.g.*, *Ultramercial*, 772 F.3d at 716-17.

2.   The District Court's Step Two Analysis Was Flawed

The district court found it unnecessary to address step two but nonetheless "note[d]" its belief that the claims included an inventive concept. JA53. The district court's step two *dicta* is incorrect for two primary reasons.

First, contrary to established law, the court relied predominantly on technological details disclosed in the specification but not required by or present in claim 7. *See* JA44-53; *Versata*, 793 F.3d at 1335; *Intellectual Ventures*, 792 F.3d at 1370; *Accenture*, 728 F.3d at 1345. In particular, the district court found an inventive concept disclosed in figures 3, 4, and 5 and their accompanying descriptions. JA53; JA46-48. For example, the district court stated, "block 112" in figure 4 provides for screening for viruses by instructing a computer to "decompress the data," "decrypt the data," "create a model of a computer," and then "screen the model for at least one virus." JA46 (reproducing fig. 4). And the court noted that figure 5 and its accompanying description in the specification describe how to "determine[] certain parameters of the receiving computer . . . in order to create an accurate model . . . in the virus screening computer's memory," including everything from an "operating system" to "executable program[s]" to initialization files." JA47-48 (citations omitted). According to the district court, the "virus screening computer" of claim 7 even requires "a step of intercepting read requests generated by [an] installation program" so that the "virus screening

computer analyz[ing] the model computer" can "reply to these read requests appropriately."   JA48 (quoting JA194 (8:29-30)); *see also* JA52 (rejecting analogies to claim 7 because they did not include certain features "from *the specification*").

But none of those steps and features identified by the court is required by claim 7. The claim only requires the nonspecific step of "detecting" a virus. JA197-98 (cls. 1, 7). The district court even disavowed construing the claim terms to include the narrow limitation it applied—as the court acknowledged, "no party asked" to interpret the term "detecting" in claim 7 that way. JA52. And any such construction would be incorrect: as the court correctly recognized, the specific embodiment it relied on described "merely one possible implementation of claim 7" and did "not limit the plain and ordinary meaning of the claim language." JA52; *see Phillips v. AWH Corp.*, 415 F.3d 1303, 1314-15 (Fed. Cir. 2005) (*en banc*) (claim language guides construction). Indeed, nothing in the language of claim 7 requires use of a "model" in the detecting step—that is required only in *unasserted* claims, *not* claim 7. *See, e.g.*, JA199 (cls. 43-53). The features relied on by the district court to find inventiveness are not part of claim 7 and are therefore irrelevant to the § 101 inquiry. *See Versata*, 793 F.3d at 1335; *Intellectual Ventures*, 792 F.3d at 1370; *Accenture*, 728 F.3d at 1345.

Even if claim 7 included the "model" features, though, they add nothing inventive because they are generic "computer functions" that are "'well-understood, routine, conventional activities[ies]' previously known to the industry." *Alice*, 134 S. Ct. at 2359 (alteration in original) (citation omitted). As the inventors admitted, they did not purport to invent virus screening. *See* JA3449; *see also* JA3461-62; JA3569-70.

Second, the district court's conclusion that claim 7 does not pose a preemption threat is flawed. The court initially (and correctly) explained that claim 7 "is *not* limited to a specific type of virus detection." JA49 n.12. But it later agreed with IV that there was no threat of preemption here because "[t]he '610 Patent captures *only one form* of virus detection and its continued eligibility will not preclude the use of other virus detection techniques—*even if they occur 'within the telephone network*.'" JA53 (citation omitted). The court did not reconcile that plainly contradictory analysis. The court's first statement was correct: claim 7 (as construed) is *not* limited to a specific type of virus detection algorithm (or network or specialized computer). *See* JA197-98 (cls. 1, 7). It is therefore precisely the type of claim that is more likely to inhibit than enhance

innovation and precisely that which *Alice* and numerous other cases foreclose under § 101.[16]

<div align="center">*   *   *</div>

Claim 7 of the '610 patent is directed to the abstract idea of screening for and removing harmful content from deliveries at an intermediary location before receipt by an addressee. None of its features (individually or collectively) adds something inventive to that idea. At most, claim 7 limits the basic intermediary-screening concept to a particular technological field with "generic" technology components and "functions" that are "'well-understood, routine, conventional activit[ies]' previously known to the industry"—which does not make it patent-eligible. *Alice*, 134 S. Ct. at 2359 (alteration in original) (citation omitted). The district court's decision that claim 7 satisfies § 101 should be reversed.

---

[16] The district court's reliance (JA53-54) on the PTO's guidance regarding subject-matter eligibility is unavailing. This case is governed by this Court's and the Supreme Court's precedent. Regardless, the PTO's hypothetical claim is not directed to simply applying the abstract intermediary-screening idea in a different location and includes numerous detailed limitations not found in claim 7. *See* JA2862-63.

CONCLUSION

For the foregoing reasons, the Court should affirm the district court's judgment that the asserted claims of the '050 and '142 patents are invalid under § 101 and reverse the district court's judgment that claim 7 of the '610 patent is not invalid under § 101.

Dated: October 5, 2015   Respectfully submitted,

                                                 /s/ Dean G. Dunlavey

Douglas E. Lumish   Dean G. Dunlavey
Jeffrey G. Homrig   Latham & Watkins LLP
LATHAM & WATKINS LLP   650 Town Center Drive, 20th Floor
140 Scott Drive   Costa Mesa, CA 92626
Menlo Park, CA 94025   (714) 540-1235
(650) 328-4600   dean.dunlavey@lw.com

Gabriel K. Bell   *Counsel for Defendant-Cross-*
Robert J. Gajarsa   *Appellant Symantec Corp.*
LATHAM & WATKINS LLP
555 Eleventh St. NW, Suite 1000
Washington, DC 20004
(202) 637-2200

CERTIFICATE OF SERVICE

I hereby certify that on October 5, 2015, I caused the foregoing Brief of Cross-Appellant Symantec Corporation to be served by electronic means through the Court's CM/ECF system on counsel for all parties who are registered CM/ECF users.

/s/ Dean G. Dunlavey
Dean G. Dunlavey

CERTIFICATE OF COMPLIANCE WITH RULE 32

I hereby certify that this brief complies with the type-volume limitations of Fed. R. App. P. 32(a)(7)(B) because it contains 16,498 words, excluding the parts exempted by Fed. R. App. P. 32(a)(7)(B)(iii) and Fed. Cir. R. 32(b).

I further certify that this brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) because this brief was prepared using Microsoft Word 2010 in 14-point Times New Roman font.

/s/ Dean G. Dunlavey
Dean G. Dunlavey